

**U.S. Environmental Protection Agency Institutional Controls Tracking System  
Local Government Focus Group**

October 10 - 11, 2002

Washington, D.C.

Hall of States

**Purpose**

The purpose of this focus group was to gather the expertise of local governments on the subject of electronic tracking systems for institutional controls (ICs). The focus group also provided a forum for local government participants to share their opinions on the challenges of IC tracking.

Participants were invited to the meeting. The participants are listed below:

Mike Bellot, U.S. Environmental Protection Agency (EPA)/Office of Emergency and Remedial Response (OERR)

Larry Zaragoza, EPA/OERR

Mark A. Monacelli, National Association of County Recorders, Election Officials and Clerks

Ignacio Dayrit, Emeryville, CA

Andrew Clough, Oakland, CA

Ned Burke, Denver, CO

Amy Brownell, San Francisco, CA

Matthew Hayduk, DynCorp

Stephen Smith, DynCorp

Jenifer Grabski, DynCorp

Michael Sowinski, DPRA

Lori Maher, DPRA

Joe Schilling, ICMA

Dave Borak, ICMA

Tom Groeneveld, *ICMA*

Danielle Miller Wagner, ICMA

Marcia Carpentier, ICMA

Maureen Findorff, Marasco Newton Group MNG

**Presentations**

Institutional Controls Briefing, presented by Mike Bellot, EPA/OERR

ICs are legal or administrative limits on land use, not physical barriers impeding use. ICs are used in most remedies and are relied upon for the long-term protection of people. EPA relies on others to implement, monitor, and enforce ICs. EPA desires a strengthening of this reliance upon third parties, and one way EPA can accomplish this is through an IC tracking system.

The present tracking of ICs is limited; in CERCLIS they are listed as 'not otherwise specified'. This is not explicit, making it difficult to follow up. Officials have no way of knowing if the ICs

are deed notices, covenants, or easements. The databases that currently track ICs in some form are: CERCLIS, SLAPCCTS, FYR, RCRA, and Site Deletion to name a few. If one were to combine the information contained within those databases, they still could not ascertain who was implementing, enforcing, and monitoring the ICs.

Therefore, EPA is proposing the creation of a separate system that specifically tracks ICs. This system will track the entire life cycle of an IC, from selection to termination. A diverse set of stakeholders is envisioned in support of the database.

Mr. Bellot presented that work that EPA has accomplished so far in the process of laying the ground work for an institutional control database. This includes the state of IC tracking across the nation, the results of previous focus groups, and the upcoming meetings.

Thus far, interviews have been conducted with all regions. Regions 1,4,6,7,8, and 10 track ICs through CERCLIS, and have no further information beyond the information in the decision documents. Regions 2, 3, and 9 track ICs on a spreadsheet. It is a rudimentary process that was spurred as a reaction to past problems. Region 5 has a post-construction completion database that does not currently track ICs, but they are in the process of adding that data element. Regions, in general, do not track ICs because entering this data requires a higher level of effort. An information request was made to review the Regions' tracking systems.

A total of twenty-four states track ICs in a system. Nine states were interviewed. They were surveyed to find out what states have tracking systems that include ICs and what is the cost of running these systems. EPA asked if they would be willing to share their tracking systems with states that do not have their own. An information collection request was made for tracking systems already in existence. New Jersey has spent \$17 million to build a system that tracks ICs, and they are willing to share it with other states.

Of the federal agencies, the Navy uses LUCIS to track Land Use Controls (LUCs or Ics). LUCIS is a GIS-based database with PDF links. Both the Army and Navy have a site-based system. This is only used after sites are transferred, and are a snap shot in time. It is not a dynamic system. The Department of Energy has completed some studies on LUC, but do not track them at this time. An information request was made to review other Agency's tracking systems.

Finally, a survey was sent out in July of this year to 200 agencies and all 50 states inquiring about current IC tracking systems and costs. Thus far, there has been a 15% response rate. Results should be compiled and reported later this year.

From this research, EPA has compiled a universe of all possible data elements that are currently being tracked by different systems. In addition, EPA funded a pilot in which researchers went out into the field in Regions 3 and 5 to seventy-two sites to find key data points identified by EPA. The researchers identified where this information was available, the status of the information, and reported the cost to collect this information.

From the field research, it was discovered that the data was not where it was expected to be. Regional files were incomplete, and often supported decision making, not IC implementation. RPMs did not have information on ICs because they are not in charge of implementation or enforcement. PRPs filed the information, but they did not know where the information was filed. Local agencies were difficult because each local government filed the information under different identifiers (*e.g.*, tax payer ID, parcel number, or physical address), and the form they were stored in varied (*e.g.*, catalogs, microfiches, and hard copies in boxes)

Little information exists about ICs after they are selected, which means that there is a disconnect between what was called for in the decision document to maintain protectiveness and what actually was placed on a property to maintain protectiveness. Monitoring is often not conducted. The agencies that are relied on for monitoring and enforcement (local and state agencies) are in a resource pinch. PRPs are reporting the installation of the ICs on the property, but they cannot enforce the ICs.

Therefore, there needs to be a link between all players in the life cycle of an IC, including EPA, other federal agencies, states, local governments, and the public. The development of a tracking system that streamlines the entry and management of IC data and release to the public will facilitate the continuation of protectiveness on sites nationwide.

#### LUC Information Infrastructure, presented by Joe Schilling, ICMA

During 2001, ICMA hosted three forums reviewing Ics or “LUCs,” as ICMA calls them. The first forum, referred to as the “San Antonio” forum, discussed fiscal impacts of implementation and enforcement on local governments. The “San Diego” forum discussed the LUC information infrastructure which involved 25 participants from local and state governments. The participants discussed aspects of LUC databases, information collection, and the role of state and local governments in LUC implementation. This forum produced a report, entitled “Defining the LUC Infrastructure: State and Local Government Networks,” which will be the focal point of this presentation. The final forum was referred to as the LUC/IC Summit. Various stakeholders were invited, including local and federal officials (*e.g.*, EPA, DoD, and the Navy), and the private sector. This summit provided an update on the status of the IC field and introduced [www.LUCs.org](http://www.LUCs.org), which is a clearinghouse of information on LUCs with links to documents, regulations, and web pages maintained by EPA and states. The site will be populated with more information as the site evolves.

ICMA has a role as a translator between the local government and EPA. It has worked hard with local governments on land use issues, including research on redevelopment of brownfields, Superfund sites, and other federal facility sites.

This presentation will focus on the information obtained from the “San Diego” forum, specifically the information in the “LUC Information Infrastructure” Document. In a conceptual overview, there are three essential stages of concern in information use: the collection and input of common data elements, the system design network, and data output. A multitude of information on LUC is available which impacts data input, (*e.g.*, site information from RODs,

FYRs, state and local data tracking systems, county recorders, and real estate transactions) This information needs to be pooled into one common site which facilitates the extraction.

The key question remains: who will be the users of an national IC tracking network and how will they use it? Mr. Schilling introduced a conceptual model that would illustrate the relationships of the system stakeholders. He said that his model of IC information input, systems coordination, and information output looks somewhat like an umbrella.

The users of IC tracking systems will vary; some will be local government personnel, some will be gardening clubs, and some will be environmental groups. Their diverse activities all require notification that land use controls exist. Currently, users learn about LUCs primarily through local governments during real estate transactions. However, LUC information does not necessarily reach users with activities that are not heavily regulated.

State and local LUC data systems that are currently in use connect contamination information to people “on the front lines” and are often integrated within the permitting process. However, some local governments with the resources have made strategic decisions to develop separate systems. Some of these systems allow for dialog between the local governments and states; others do not. One system, the Emeryville One-Stop Shop – created under a Brownfields grant – has helped facilitate economic development in that community by streamlining the process of educating developers.

A network of LUC information systems may bring the efficiency and convenience of the Emeryville system to users nation-wide. The key points that we need to explore now are adapting tracking systems that are already in existence to a larger system and determining who will perform the various aspects of stewardship over the database.

In the end, the goal is facilitating access to information outputs. Information outputs can educate and improve government and private development nationwide, ranging from real estate transactions to public facilities repair. The key is to get the right people the right information at the right time. This focus group will help pave the path to moving towards this network.

## **Discussion**

A participant asked if there are any institutional controls that are an EPA responsibility. If that is not the case, do the states have the right to deal with the issue themselves? EPA/OERR responded that it responsibility for IC implementation varies depending upon the legal authority under which the cleanup actions were conducted. For instance, NPL sites are an EPA responsibility up until the state takes over operations and maintenance. Other sites cleaned up under state authorities may be entirely a state responsibility. Cleanup authority hinges on what type of contamination is on the site, what type of site it is, how extensive the contamination is, and if it the site is public or private property. As always, zoning is under local governmental authority.

Mr. Bellot said there were four categories of activities that Mr. Schilling’s umbrella must cover: land use transactions, local government permitting, land use activities that don’t trigger permitting requirements (*e.g.*, call before you dig, one-call activities), and completely unregulated physical activities (*e.g.*, gardening, burrowing animals, and natural disasters). The first three activities have institutions in existence that inform a user of institutional controls, even if these institutions do not work effectively. It is suggested that there should be some effort put towards increasing the strength and effectiveness of these institutions.

## Data Categories

The facilitator, Ms. Findorff, introduced the group to the main business – the data categories discussion. She presented the goal of the discussion as eliminating excess data categories from a matrix that was handed out to participants at the beginning of the discussion. This matrix, the Data Category Comparison Matrix ( “the matrix”), is a compilation of all data inputs categorized from five independent IC tracking systems. These tracking systems were received from the states of Florida, Missouri, New Jersey, and Wisconsin, as well as the City of Emeryville. Ms. Findorff outlined a grade scale to facilitate importance to each data category. They are as follows:

Grade	Definition
A	Data categories that participants assigned the highest priority for tracking purposes
B	Data categories where a middle level of tracking priority was assigned; an average computed due to an equal number of “A” and “C” votes
C	Data categories that participants assigned the lowest priority for tracking purposes
D	Data categories that caused strong disagreement amongst participants

In addition, Ms. Findorff presented a key to the color coding in the matrix, which compare elements tracked by federal systems. They are as follows:

Color	Definition
Green	A match between possible EPA data category and a data category that a federal system is already using
Light Orange	No match between a possible EPA data category and the data category used by a federal system – light orange data categories are also marked “not available”

Dark Orange	A data category tracked by a federal system, but not listed in EPA’s possible data categories
Teal	A data category tracked by a federal system, but not listed in EPA’s possible data categories because the category is tracked by EPA in another system (e.g. CERCLIS 3)

Ms. Findorff explained the division of the matrix into six independent sections that address different aspects of ICs that may need to be tracked. They are as follows:

- Appendix 1: Site Information Data Categories
- Appendix 2: IC Selection Data Categories
- Appendix 3: IC Implementation Data Categories
- Appendix 4: IC Monitoring/Enforcement Data Categories
- Appendix 5: IC Costs Data Categories
- Appendix 6: GIS Layer Data Categories

Ms. Findorff said that she wanted to know what the participants thought of the information in these appendices. For instance, she suggested that the participants ask questions about what different data categories mean, whether those categories are important to track, and how important they are to track (*i.e.*, are they grade “A”, “B”, or “C”). It was suggested by a participant that each person take a moment to independently grade each data category in an appendix before the focus group begins to discuss each appendix.

EPA/OERR said that this independent grading would be fine, but asked the participants to look at the data categories listed and to think about what information they would need to do their jobs. This would assist EPA in compiling a system that collects information, is user friendly to all parties that would access it, and would be easy to query. One concern that was discussed was the level of detail in the system. The participant said that EPA can do one of two things: create a system with a very high level of detail that will take high levels of effort to update or create a system with a lower level of detail that references materials. The participant believed that the lower level (*i.e.*, only the essential information) should be included so that the system can weather staffing shortages and similar unforeseeable situations. The participant also asked if there would be cooperation in maintaining the database. If the information involves state or local inspections, EPA might not be able to maintain enthusiasm, and lapses in effort by state and local entities would compromise the system. EPA/OERR responded by saying that the purpose of the tracking system is two-fold: first, it is for an internal management function (notification of when to report or check on ICs) and second it is for an external informational database (notification to those who need it before they complete a transaction that involves ICs). EPA will track ICs both to help run their programs and to help external users.

#### **Appendix 1: Site Information Data Categories**

### Site ID

There was some discussion as to what would define the site, if it would be an EPA ID or some other type of ID. There are a variety of site identifiers that are used by different entities, including: Site ID; Name; Address; Parcel Number; Section, Township, and Range. The group agreed that “Site ID” is an A. The issue of site identification will be revisited.

### Program Information

The group agreed that “Program Information” is an A.

### Site Name, Parcel, Locality, Site Addresses, Parcel Numbers, Site Boundary, and Section, Township, and Range

There was much debate over the identification of the site. These identifications listed above are legal descriptions. Not all of these descriptions are needed, only some as-yet undetermined amount of legal description is actually necessary. The participants believed that using parcels is not the best way to track a piece of land because there are different types of parcels and parcels change all the time. They can be divided by the owners at the owner’s discretion. To remain accurate and track the genealogy of a parcel would take much effort. In addition, sometimes a city’s and a county’s definition of a parcel are not equal. They felt that an independent Site ID that would remain with the land would be an accurate way to track a piece of land through all of its legal description changes. Another participant stated that tracking the latitude/longitude of a site in GIS supercedes the need for updating parcel numbers. GIS is a better tool because it enables the user to finding the physical location with accuracy and efficiency. Cities are more reliant on GIS than tracking parcel number changes. Another participant said that the only way to track an IC on a piece of land is to tag an IC to a parcel number and have that tag transfer to any subdivision of that land. Section, Township, and Range are used in unincorporated areas predominantly. They vary in definition by state. If the system can incorporate each of the fifty state’s definition in a manner that is cheap, then it should be included. It was decided that more than one legal description is needed to allow for layering to ensure that a site’s definition is not lost. The group agreed that “Site Name, Site Address, Locality, Site Boundary, and Parcel Number” would be an A. “Section, Township, and Range” would receive an A or a C depending on ease of incorporation into the system.

### EPA Region

The group believed that this was not applicable to their needs; the site is never going to leave their region. The group agreed that “EPA Region” is a C.

### Tribe/Site within fifty miles of Tribal Land

The group had no contact with tribes, but may be important to those municipalities that have reservations surrounding them. However, they believed that this would be common knowledge. The group agreed that “Tribe/Site within 50 miles of Tribal Land” is not applicable.

### Federal Facility

The group believed that this would tie into Program Information. There may be different regulatory procedures for transfer of property depending on who transferred the property. This

information may also help tracking site history. This information was not vital, it is more appropriate as background information. The group agreed that “Federal Facility” is a B.

#### Congressional District(s)

The group believed that this information would be common knowledge, and therefore unnecessary. The group agreed that “Congressional District(s)” is not applicable.

#### Site Background

The group believed that this should refer to a resource for review or an abstract of that resource. Access to this information is vital. The group agreed that “Site Background” is an A.

#### Site Reference Point

This information is as important as the legal description. The group agreed that “Site Reference Point” is an A.

#### Site Reference Point Metadata

This data, including accuracy, validity, and source of data information, provides accountability of the provider. The group agreed that “Site Reference Point Metadata” is an A.

#### Operable Units

The group believed that this was a site description. Including the information would allow a user to view the site according to actions that were taken at the site and help determine reuse. There is a disconnect between Operable Units (OUs), and the parcels they are connected to; a site is at least one parcel, if not more. NPL listings only include where the contamination is located, but this contamination can span several parcels, or portions of several parcels. So, just having the parcel numbers may not be an accurate picture of the status of a site. There was debate over the importance of this data element. The group agreed that “Operable Units” is a B.

#### Hazardous Substances

The group agreed that “Hazardous Substances” is an A.

#### Media Impacted

The group agreed that “Media Impacted” is an A.

#### Engineered Controls/Remedy

The group agreed that “Engineered Controls/Remedy” is an A.

#### Cleanup Authority

The group believed that this may overlap with program information, but the information was vital. The group agreed that “Cleanup Authority” is an A.

#### Site Lead

This data element may overlap with cleanup authority, but there is a distinction between federal clean up authority and site lead. The group agreed that “Site Lead” is an A.



### Site Status

The group agreed that “Site Status,” or the status within the cleanup process, is an A.

### Site Contact

The group believed that it is key to capture the organization. The people involved change over time. The group agreed that “Site Contact” is an A.

### Additional Data Categories

The group discussed the additional data categories used by the Emeryville One-Stop Shop and some states (*i.e.*, email addresses, automatic reminder messages, and GIS layer highlighting). The group believed that they were an excellent idea to incorporate. The remaining elements included in the Emeryville One-Stop Shop were all locally controlled data elements. They believed that local governments would want control over updating these elements, and would not want anyone else to take possession. The group agreed that these elements were nice to have, but too much for the purposes of the EPA database. The group agreed that email addresses, automatic reminder messages, and GIS Layer Highlighting would be an A, with all other “Additional Data Categories” being a B.

## **Appendix 2: IC Selection Data Elements**

### IC ID

The group agreed that assigning a unique ID to each IC would be beneficial, especially on sites that have more than one IC per OU. This would be particularly useful if one were trying to determine how one IC impacts another IC. The group agreed that “IC ID” is an A.

### IC Category

The group agreed that the only way that this category would function efficiently is if instead of entering text, there would be a drop down list from which one can choose the appropriate IC Category. This will increase the objectivity of data elements in this data category. The group agreed that “IC Category” (with a drop down list) is an A.

### IC Category/Sub-Category

These two fields can be incorporated into the IC Category data element. There was strong disagreement over the usefulness of this data field. It is a D. (??)

### Media of Concern, IC Objective(s), and Remedy Protected by IC

The group decided that these three data categories could be rolled into one data field. The objectives of these three categories is to complete remediation of the remedies, which would therefore be protective of the media of concern. This is the point of placing ICs on properties. If all three data elements were rolled into one data field, the group would give the category an A.

### Hazardous Substances Associated with the IC

The group discussed this category in some detail. One participant said the location of the hazardous materials should be covered by the IC, or else the remedy is not protective.

Therefore, the location of the hazardous substances would be redundant information. However, including what hazardous substances associated with the IC may increase efficiency by assisting in sampling activities and similar activities. The group agreed that if location is removed from the data definition and data inputs, “Hazardous Substances Associated with the IC” would be an A.

#### IC Area, IC Boundary, and Parcel Number

Since this information all relates to the physical location of an IC, the group believed that this category could be rolled into one data field. If IC Area, IC Boundary, and Parcel Number are rolled into one category, the new category would be an A.

#### Conveyance of Property Rights

Cities would know who owns the property because all of the official means of acquiring property is done with through the city, including property rights transfers. The group believed that this would be beneficial to other users of the system, but the property rights transfers should be expanded from transfers to EPA to transfers to anyone. “Conveyance of Property Rights” would be an A.

#### State Assurances to CERCLA

The group agreed that “State Assurances to CERCLA” is a C.

#### Third Party Enforcement Rights

The group believed that this category should be expanded to include any entity that has third party enforcement rights, because in some cases it may be a city or a state. The group felt that if “Third Party Enforcement Rights” is expanded to include any entity, it would be an A.

#### Risk Factors

A participant pointed out that some ICs protect remedies with larger risks, and this may be very important information to some users. However, some cities may not be able to determine how severe a risk is because it is difficult for non-experts to characterize risk. Therefore, creating a pre-populated drop down list may add more objectivity to the database. Another participant pointed out that these ICs already have had their risk factors characterized by experts; the ICs were decided upon and implemented by the lead agency. This information would be most valid if it were input by the lead agency. But, logic would lead one to deduce that there must have been a significant risk factor to warrant an IC to begin with, so entering this data is a low priority. Another participant said that some users may want to know the correlation between remedy and risk. The importance of including this data field varies between users. There was strong disagreement amongst the group; the grade for risk factors is a D.

#### Anticipated Future Land Use

The group agreed that this is hard to characterize because the anticipated future land use is determined when the ROD is signed. Participants pointed out that redevelopment plans are tentative at that time, and often change later. In addition, it is unknown if the potential land use envisioned by the lead agency is consistent with the local plan (*e.g.*, zoning restrictions).

Finally, the future reuse of land can change if the original remedy called for in the ROD fails. The group agreed that if the title were changed to “Anticipated Land Use at the Time of the Remedy Selection,” this field would offer a snapshot in time. The field would not have to be updated as the debate between anticipated and pragmatic land use options ensues. If the title of this data element is changed to “Anticipated Land Use at the Time of the Remedy Selection,” it would be an A.

#### Contacts

The group agreed that it would be more appropriate to track the agency who decided on the remedy rather than the specific person. If the agency were listed as “Contacts,” it would be an A.

### **Appendix 3: IC Implementation<sup>1</sup>**

#### Source Document

The group believed that Source Document, or whether the IC is called for in a decision document, is not a high priority for them to track. The group agreed that “Source Document” is a B.

#### Implementation Status

The group agreed that “Implementation Status,” or details including whether or not the IC has been implemented and the date it was implemented, is an A.

#### Duration

The group agreed that “Duration,” or the life span of the IC, is an A.

#### Implementation Party

The group agreed that “Implementation Party,” or the party responsible for implementing the IC and the party the IC restricts, is an A.

#### Implementation Issues

This would include the lessons learned during the implementation process, and is a valuable resource. However, this would require monthly reading of new entries. This is a time consuming task and therefore it was felt that this is an inappropriate forum in which to discuss implementation issues. The group agreed that “Implementation Issues” is a C.

#### Termination Status

This would include termination in land records. Terminating an IC varies from state to state. Some states require a lot of documentation proving clean up is complete, other states assume that the site is complete because the IC is being terminated. It was believed that “Termination Status,” including details of the termination and the date of termination is an A.

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<sup>1</sup>It was pointed out that this section is useful as an internal management document. The group should consider if the information should be in a database, or would be more appropriate as an IC Implementation Plan that outlines roles and responsibilities.

#### Termination Initiation/Approval Party

The group agreed that “Termination Initiation/Approval Party” is an A.

#### Modification Information

The group agreed that “Modification Information” is an A.

#### IC Implementation Documents

The group agreed that “Implementation Documents,” including electronic images or web links to the IC Implementation Plan, IC Document, and other related documents, is an A.

#### Contacts

The group agreed that “Contacts” is an A.

### **Appendix 4: IC Monitoring and Enforcement Data Categories<sup>2</sup>**

#### IC Monitoring Requirements, Monitoring Parties, Monitoring Frequency and Dates, Monitoring Findings, CERCLA Five Year Review, Notification Provisions for IC Breaches, IC Breach Incident Report, Land Use Changes & Exposure Scenario Changes, Enforcing Party, and Enforcement Authority

The group agreed that all of the listed categories would be excellent resources to access. They voiced concern over who would be using this, because they were not sure that it universally useful. Local governments, for the most part, are in charge of enforcement of ICs, so they are aware of all of this information. A participant stated that since the local government is the author of most of these reports and has enforcement authority, they would like to retain ownership of the information contained therein, including updating the information. They are not sure if this is the appropriate forum to share this information. In addition, a determination should be made over the backlog of historical information. The group agreed that as updates are made to the system, the information should be saved as historical data and not purged from the system. The group agreed that all of the listed categories are an A.

#### IC Related Enforcement Action, IC Related Enforcement Action Resolution, IC Damages/Penalties, Monitoring/Enforcement Documents

The group agreed that the information would be nice to know, but it is not mandatory. They voiced similar concerns to the preceding comments. The group agreed that all of the listed categories are a B.

#### Contacts

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<sup>2</sup>This appendix may be used for those who are looking for a brief overview. Participants pointed out that monitoring parties aware of their roles and responsibilities, so this appendix doesn't hold any information that they don't already know. Furthermore, this data may be replicated in local tracking systems. It was suggested by participants that web links to these systems may prove to be a more efficient way to track the information. This would only work for municipalities that have their own tracking system.

The group agreed that “Contacts,” if only the agencies and positions involved are listed instead of particular individuals, is an A.

## **Appendix 5: IC Cost Data Categories**

### IC Design Costs, IC Implementation Costs, IC Monitoring Costs, IC Enforcement Costs, Total IC Costs, Remedial Cost Savings, and Contacts

The group believed that IC costs, while interesting to know, are difficult to prove. One participant stated that one federal agency is always misrepresenting the costs of ICs. EPA/OERR pointed out that Responsible Parties (RPs) often have this information. Some participants felt that ICs are usually more expensive in the long-term than actual clean-up to unrestricted levels. They said that this may be a great way to save local government money because it will present IC cost information that is currently difficult to find.

One participant pointed out that most of the information of costs will be reliable only at the time of remedy selection because “fuzzy math,” or the miscalculation of man power to design, implement, monitor, and enforce the ICs, are rarely tracked in a valid and reliable way. However, the participant conceded that some design and implementation costs can be captured. The group agreed that it is very difficult to figure out IC costs over time. They believed that federal agencies were less likely to be concerned about costs because those will fall on the state and local governments over time. It was determined that the easiest costs to track – design and implementation – should be tracked, and are an A. The remaining categories are a B because those figures are difficult to calculate.

## **Appendix 6: Geographical Information Data Categories**

### Municipal Boundaries, Transportation/Roads, Hydrography, Hypsography, Land Use/Land Cover, Geographic Names, Aerial Imagery, and Federal and Indian Lands

The participants agreed that all of the layers of GIS data presented are equally important. Most cities either have GIS, or are in the process of getting GIS. The cities would have the most accurate information, but may be reluctant to give up ownership of this data because they are constantly updating this information. Cities may, however, be willing to share (without giving up ownership). One major concern of the participants was that some of the layers contain information like water intakes and other public works features that present security issues. They would want information to be shared that would only have pertinence to ICs. Basic GIS information would be allowed to public viewing. This basic GIS information should be available from all cities. The group agreed that all the possible GIS data categories are an A.

## **Debriefing**

Participants brought up several points that they believed were unresolved. They include the following points:

- EPA needs to hear about the real and practical obstacles that stand in the way of local

governments participation in the IC tracking system. For instance, if the focus groups all agree on 33 data categories, would the local governments be willing populate these data categories? It is important for EPA to consider what tracking system functions and data categories benefit local government personnel and tracking system users. There are initial generation costs of data, but the use of this data may save money in the future.

- A participant from ICMA pointed out that cities are at three stages in tracking ICs: cities like Emeryville that already have IC tracking systems, cities that are in the formulative stages of tracking ICs, and cities that have not identified IC tracking as a concern. Discussion with this final group to determine their needs is crucial. These people will need to believe in the benefits of becoming stakeholders in the IC Tracking System.
- Output drives the design of the rest of the system. A question that needs to be constantly revisited is, "What information are you trying to get from the system and to whom are you trying to get it?" This question will determine what is done during the early phases. EPA/OERR responded that this question will be further clarified at the Fall IC Workshop.
- A participant from Denver pointed out that a lot of the information that goes into the Colorado covenants are covered in the data matrix. The City/County of Denver already has a lot of information that is relevant to the IC tracking system, but the City of Denver is trying to cooperate with the State of Colorado because the state holds the rights under the covenant. The roles and responsibilities of each entity are unclear. The state and the city do not agree on what data is important. Therefore, it would be wise to assign the responsibilities of tracking certain data to the entity that finds the data crucial.
- There are models in existence in the underground storage tank program. The UST models can provide a model for how the system will be operated and who will have what responsibilities for what data.
- There was a question on how Emeryville funded their IC tracking system. It was noted that the city put in some money, and EPA provided a grant through the Brownfields program. Anyone can purchase the Emeryville system (most likely it available through Emeryville's consultant.) EPA also permits the use of 10% of new brownfields grants for IC monitoring. This amount must include all IC work, including EPI studies. The City of Denver is using part of their grant to build a GIS system to track brownfields. They would add any information on IC to the tracking system. An EPA consultant suggested in characterizing tracking as something other than "monitoring and enforcement."

Participants stated that despite issues in collecting data on cost, this data would be of particular interest to them. This would validate information between local governments and RPs. In addition, they voiced concern over data ownership and accuracy. Local governments would be able to obtain information available to all parties involved, thereby increasing consistency. Local governments are often the parties that have to install these institutional controls, and often have to swallow the cost of implementation, enforcement, and monitoring. They find this information to be particularly important.

Mike Bellot invited all the participants to the Fall 2002 IC Workshop, to be held October 28-30th in the Hilton Washington Embassy Row. The purpose of this meeting will be to move

closer to the actual creation of an IC tracking system. Each focus group will summarize their discussion in a presentation to be made by a representative of each focus group. There will then be break out sessions in which one member from each group will form a new group to discuss the results, as well as the perceived format of the IC tracking system (including data input, system coordination issues, and information output). The groups will brainstorm on ways to manage these factors and then create an action plan to create and manage the tracking system. Systems that are already in existence can be evaluated for lessons learned and cost of implementation. Mr. Bellot hopes that some of these systems will be shared between participants.

EPA's internal motivations are to focus on internal desires and the desires of the users. In order to create this system, there needs to be an explicitly defined need for the system. This will involve dialogue with EPA's peers to define this needs. In addition, EPA will need some help in the cost of running this system, so it is critical to have representatives available to define their needs and wants in order to drum up enthusiasm for the project.

The system should show ICs are selected, in place, and are working. The system should be user friendly and cost efficient.

Anticipated points of contention are data ownership and management costs. Much of the data will come from the municipalities, and they may be reluctant to relinquish control over that data. Participants also noted that the costs of updating the system by municipalities would be a higher to those municipalities than other users if it decided that local governments will maintain ownership over their data points. It was pointed out that if municipalities have Brownfields sites, they can use up to 10% of the Brownfields funding for ICs. Municipalities can also purchase rights to use Emeryville's system from the contractor that created it for \$15,000.

## **Wrap-up**

Joe Schilling lead the conclusion stating that the goal of the IC Tracking System is to prevent exposure of contaminants to land users. This issue of defining information outputs hinges on how to get the right information to the right people at the right time. It needs to be determined who needs the information, what type of notice one wants to give, and how one can link databases to make this happen. It may help to look at thins information exchange as a sequence, spanning from a user obtaining a permit, city inspectors viewing the site and enforcing the building codes, and so forth. These are all potential intervention points. It may be easier to close the gaps when there is already a permitting process in place. Then all one has to do is get the existing systems to talk to each other. If there is an IC database in place, inspectors and other users will have to be trained to check the database at all the crucial points.

It is more difficult to reach users when they are engaged in non-regulated activities. Education is key because while most people do not understand what ICs are, after education they would act in self-interest to restrict contact with contamination. This requires getting the information contained within the data system to the right users at the right time. It is necessary to identify

who needs the information, what type of information is needed, and how to create links between the data base to get the information.

It is thought that there are various parts in the local development process where educational tools can be inserted to alert a land user to restrictions on the property. This includes obtaining a permit and inspections. At both these points a property owner can be educated. Educating people about land use restrictions is key to maintaining the protectiveness at sites. Places where ICs can “spring off the paper and work in practice” have been identified as: property transactions, one-call prior to excavation, local government permitting, unregulated activity, routine monitoring and enforcement, citizen complaints, and annual reminders to educate the public.

At the San Diego ICMA workshop, ideas were formulated to get information to the people. This includes ad campaigns from the environmental law institute, web campaigns/advertising, and educational coloring books for children. Examples of educational sources already in use are neighborhood heritage museums on closed military bases, which remind visitors of the former land use and subsequent contamination.

Monitoring for breaches is the other half of maintaining protectiveness at sites. There are various points where education fails. Monitoring of regular activities, property transactions, and local government permitting all monitor for breaches. However, unregulated activities like gardening are more difficult to monitor. One solution to preventing breaches is for a municipality to not accept any ICs that would be disturbed by unregulated activities. San Francisco does not accept ICs that can be breached by unregulated activities. Contamination can only be left below ten feet. They believe that ICs that can be breached easily are failures. In addition, the Mission Bay site in San Francisco has a “no yard” rule, because there would be no way to enforce a shallow digging ban otherwise.

This process is constantly evolving, and will be discussed in more detail at the Fall 2002 workshop presented by EPA/OERR.

*At this point Ms. Findorff adjourned the focus group.*